

IN THE CLAIMS

1-5. (canceled)

6. (currently amended) A fluid replacement system, comprising: blood treatment apparatus that generates outgoing fluid and consumes ingoing fluid; a chamber including an interior wall dividing the chamber into a first compartment to retain a volume of outgoing fluid and a second compartment to retain a volume of ingoing fluid, the interior wall responding to differential fluid pressure to displace outgoing fluid from the first compartment as ingoing fluid is conveyed into the second compartment and vice versa, an outgoing line to conduct outgoing fluid, a first pump assembly communicating with the outgoing line and the first compartment, a second pump assembly communicating with a source of ingoing fluid and the second compartment, a third pump assembly communicating with the outgoing line and the first compartment [[in]] at a location upstream of the first pump assembly, and a controller coupled to the first, second, and third pump assemblies, being operable in a first cycle, during which the first and second pump assemblies are operated to convey a volume of outgoing fluid into the first compartment to displace a volume of ingoing fluid from the second compartment, the controller also being operable in a second cycle, during which the first and second pump assemblies are operated to convey a volume of ingoing fluid into the second compartment to displace a volume of outgoing fluid from the first compartment, the controller being selectively operable during the first and second cycles to operate the third pump assembly in a bolus mode, during which a volume of outgoing fluid is recirculated from the first compartment into the outgoing line to displace ingoing fluid from the second compartment while limiting removal of additional outgoing fluid by the blood treatment apparatus.

7. (original) A system according to claim 6, wherein the controller is selectively operable to operate the third pump assembly in an ultrafiltration mode, during which outgoing fluid is conveyed from the outgoing line in a path that bypasses the first pump assembly.

8. (original) A system according to claim 7, wherein the controller is operable in the ultrafiltration mode during the first and second cycles.

9. (original) A system according to claim 6, wherein the controller operates during the first and second cycles to achieve a predetermined volumetric balance between waste fluid conveyed into the first compartment and replacement fluid conveyed from the second

compartment, and vice versa.

10. (original) A system according to claim 6, wherein the controller is operable to maintain prescribed pump rates for the first, second, and third pump assemblies, and wherein, during the bolus mode, the pump rate prescribed for the third pump assembly is less than the pump rate prescribed for either the first pump assembly or the second pump assembly.

11-17. (canceled)